

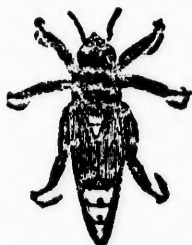
CIRCULAR.

AND

PRICE LIST,

FOR

1883



WITH

REVISED PRICE LIST.

FROM

**W.G.RUSSELL,
MILLBROOK.**

ONTARIO.

CONVENIENT TO AND EAST OF STATION.

The EDITH *and* LORNE PIERCE
COLLECTION *of* CANADIANA



Queen's University at Kingston

4536

TO THE BEE-KEEPERS OF ONTARIO.

WITH much pleasure I again present my ANNUAL CIRCULAR AND PRICE LIST, to the Bee-keepers of Ontario, and also return thanks for their very liberal patronage, during the past season. Although the past season has been one of the worst honey seasons, that was ever known, in Canada, we do not feel discouraged, on that account, because so bad a season has not occurred for at least thirty years. Failures, in other crops, are of much more frequent occurrence, and it generally happens that a very good season follows a poor season, and a steady hard winter is also favourable for a good honey season; therefore we may reasonably expect that the coming season will be a good one. We should exert ourselves to be ready to take advantage of the coming honey harvest. Although we have had an exceptionally poor season, in Canada, they have had a very good season, in some parts of the States; for instance, some of the Western and Southern States, and especially Texas, some reports from Texas, claim to have taken as high as eight and nine hundred pounds from one hive. Although the past season has been a general failure, in Canada, my bees have made more than paid the expence of running them. And my average yield, of honey, per colony, spring count, for 1881, was 150 lbs, and that was obtained under very unfavourable circumstances.

I commenced in the spring, with sixteen colonies, some of which were very weak, and nine of them were in box hives, which I transferred into movable frame hives, in the begining of honey season, and of course that interfered, greatly, with their seasons work, yet I took off the above amount and left them about 300 lbs more than was necessary, for winter stores. Although we may have an occasional poor season, in Canada, I believe they are less frequent here than in many parts of America or Europe, and I also believe that the average yield, of honey per colony is as great, in Canada, as in any part of America or Europe. The wintering of bees appears to be the most difficult point we have to deal with, in Northern Climates, but I believe, with proper attention, and care, they can be as successfully wintered as any other kind of Stock.

For wintering bees, there are several different plans, which may be practiced with success, but as to which plan each Bee-keeper should adopt, will depend a great deal on circumstances. I will give, further on the several different plans as laid down by Mr. D. A. Jones; also the plan I intend to practice, my self.

For wintering, alone, I believe the plans laid down by Mr. Jones, are about the best, at present known, but what we want is a Hive that will be a success, all the year round, and I believe the double wall sawdust and chaff hive, properly made, will fill the bill. But why they have not been a success, in the past, I think is because they have not been made with thick enough wall; they have generally been made with only 4 inch wall, but I am now making them with 6 inch space, for sawdust packing on the four sides and bottom, and on the top, over the frames, I put about two

inches of wool cushion, and six inches of chaff cushion, and lid over all, which I believe will make a good winter proof hive, and also will protect the bees, during sudden changes of weather, in Spring and Fall, and are constructed so as to be very convenient to handle, in summer.

We make a broad alighting board, so that when Extracting, we can shake the bees on it so they can immediately run in the fly hole, instead of being scattered around in the grass. We also make a verandah, or porch, the full length of the front of the hive to keep off the hot Sun, in summer, and the storm in winter. Another advantage in this hive is in wintering two colonies, in each hive; they help to keep each other warm, as they are only divided by one light division board, besides it reduces the first cost, of hives, per colony, much lower than having to provide each colony with a separate hive, and when the hive is once made and packed, there is no further trouble packing and unpacking. One of them should last twenty-five or thirty years, by repainting every few years.

WINTERING OF BEES.

THERE is about five different plans, which is most generally adopted, for preparing bees, for winter, as follows, viz.:

1. IN CHAFF OR SAWDUST HIVES.
2. IN BEE HOUSE.
3. IN CELLAR.
4. IN CLAMPS OR CHAFF BEN.
5. IN BOXES PACKED.

And the plan, which should be adapted by each bee-keeper, I think depends upon circumstances; for instance, if a man has only one or two hives, probably packing in boxes would be cheapest, then, if a person has, say from five to fifty or one hundred hives, then I think.

The chaff ben, or cellar, would be cheapest, but if you have over one hundred hives, then the bee house might be the cheapest.

I think any of the above plans, if properly done, will be comparatively safe, for winter. What we want to get at, is something that will be good and safe, for Fall, Winter, Spring and Summer, with the least cost and trouble, for we often find, that after bees have passed the winter, safe, and in good condition, they will spring dwindle, or fail to progress with brood rearing, as they should, on account of backward, cold weather and chilly nights, and in the fall, before the bees are packed, we often have cold and chilly weather, which is very hard on them, therefore I intend to adopt the sawdust and chaff hive, for my own use, a number of which I have already in use.

I make them different from any thing I have seen in use, which are, as follows, for instance, I make six inch space between walls, for sawdust, instead of four inch, that is generally used, and 1½ or 2 inches of wool and 6 inches of chaff cushion, over the frames, which I believe will be

ample protection for winter, or cold weather, and in the hot days in summer, they will be cooler than in a single board hive. Some of the advantages we claim, for the double colony hive, are as follows; in the first place, we make the hives long enough to contain eighteen comb frames, in the one story, and make two four inch fly holes, four inches from each end, on front side of hive, so that by putting in a tight fitting division board, in the center of hive, we can winter two colonies in each hive, and when warm summer weather comes, we can take one colony out and put it into a common single board hive, until cold weather comes again and when we take out one colony, we allow the remaining one to expand, and occupy the whole hive, by adding fresh combs, or foundation, and by using the Jones's zink board, we can put in sections boxes for comb honey, in body of the hive, and the fly holes, being twelve inches apart, the bees can go in either fly hole, and deposit their loads of honey, and go out again, without passing through the zink board, or we can occupy part of the space, for comb honey, and part for extracting frames, and yet leave the Queen all the combs she can fill with eggs.

Of course, the full advantage of this size of hive, is only made passable, by the use of the Jones's perforated zink board.

JONES' PLAN OF WINTERING.

THIS is a subject which has baffled our most scientific bee-keepers for ages, and a doubt still seems to exist in the minds of some if this subject has been fathomed, which, however, to my mind, is not the case. To me the wintering of bees is very simple, and I have no more question about wintering every colony in proper condition than I have in wintering horses, cattle, or any other kind of stock. It is only necessary to have a knowledge of their requirements; complying with these means success.

I have tried all the different methods; spent thousands of dollars in experimenting, and have no hesitation in saying I have had a larger and more varied experience than any other bee-keeper. I have succeeded for years in wintering by the system which I have adopted, and hundreds of others have been successful who have carefully followed the same instructions and directions.

• This system is so simple and easy that any novice can carry it out without difficulty, and can be applied to suit all bee-keepers irrespective of number or kind of hive.

I will give FIVE different methods of wintering, viz.:

1. IN BEE HOUSE.
2. IN CELLAR.
3. IN CLAMP.
4. IN CHAFF OR SAWDUST HIVES.
5. IN BOXES PACKED.

WINTERING IN BEE HOUSE

To do this successfully it should be so constructed that the out-door temperature cannot affect that of the bee house; and in order to accomplish this its walls should be packed tightly with two feet of dry sawdust or three feet of chaff, packing overhead same thickness, and the bottom so protected that no frost can penetrate. Next, it should have a ventilating tube at the top, of not less than one square inch to each colony of bees.

It should have sub-earth ventilation by means of a tube laid below the depth frost will penetrate, and from one to three 100 feet in length, coming in contact with outside atmosphere at the other end; as air passes through this tube it is tempered by the distance through the earth, and comes into the house at an even temperature. By means of slides at these ventilators, the temperature can be arranged in the bee house, which should stand from 43° to 46° and in no case should it fall lower than 42° . Now, if a bee house is constructed in this way it will not change its temperature more than from 1° to 3° during the winter, and can be regulated, as before stated, by means of ventilating slide. Have tight fitting triple doors, making two dead air spaces.

When the bee house is filled, and during warm weather in the spring, where a person does not want to set them out until the first pollen appears (which is generally from the Tag Alder or Black Willow), it is necessary that the temperature of the room be kept at the wintering standpoint. This may be done by means of an ice-box or refrigerator, filled with ice or snow, and suspended at top of room in close proximity to the ceiling. The bottom of the box must be so constructed that while the warm air may be allowed to pass up through the refrigerator, the drippings will not drop to the floor and create moisture. This latter may be prevented by means of a tube running from the box down through the floor, while the former may be affected:

PREPARATION FOR.—All this must be done in the fall. They should be strong in stores, plenty of young bees, and should be crowded up to have no more comb than they can cover, and these should be well stored with pollen and honey (say 20 to 30 pounds of the latter). If you have not this quantity, feed granulated sugar and water (2 pounds of the former to 1 pound of the latter) brought to a boil and allowed to cool before feeding.

This makes a good and even better feed than the best of honey, and should be fed in time for bees to seal it over. Commence feeding about 1st September, or immediately after first frost has killed the flowers. *No glucose should ever be fed.* Winter passages should be made through combs, between which a space of half an inch should be left. During the last sunshining days in fall remove the lid and cloth from hive and allow the sun to shine in; this purifies and dries them. Then put on a cloth free from propolis; that same evening carry bees carefully into house, placing them on a bench 10 to 12 inches from the floor or ground; this keeps

them out of the carbonic acid gas, which is given off by the bees in the hive, and which sinks to the lowest part of the bee house. The lids should be removed, and only cloth or cushion of chaff or sawdust allowed to remain on hive. Leave entrance wide open.

When the first row has been placed on the platform, from 2 to 6 inches apart, take two strips 1 to 2 inches wide, and place on top at rear and front of hives, and upon these place another row, so that the places between the hives in the second row will come over the centre of hives in the first row, thus allowing a free circulation of the air and the escape of the moisture.

Continue the above until all the hives are placed. Care should be taken to have the stronger stocks in the bottom rows.

Two thermometers should be placed in every house—one opposite the bottom and the other opposite the top row, the former indicating 43° and the latter 46°.

Keep house perfectly dark and let them alone until you set them out in spring, unless they show signs of dysentery by soiling the entrance of their hive, in which case take them out quietly on the first favourable day and give them a fly, taking care to replace the hive immediately they have returned from their flight.

WINTERING IN CELLAR.

The preparation and management in the fall and throughout the winter is the same as is necessary in the bee-house, but they must be placed at least two feet from cellar bottom; keep the temperature the same as in bee-house.

Do not allow any decaying vegetables in the cellar with the bees. If they show signs of dysentery and the weather is fine give them a flight, being sure to always put them on the same stand again after first flight. Never leave them out over night, but put them back in the cellar after they return from their flight. Set out of bee-house and cellar the first favorable weather when pollen appears.

The hives must all be examined carefully when setting out, and only what combs the bees can cover must be left. Take care plenty of stores are left in the hives, and have the bees crowded together as much as possible by the use of the division board. •

WINTERING IN CLAMPS.

Prepare the colonies the same as before. Make a platform six inches above ground and wide enough to have from ten to twelve inches of space

In front of the hive, twelve to fifteen inches at rear of hive, and platform long enough to hold all your hives. After placing them from four to six inches apart, if there is any space in rear of division board pack it with *dry* sawdust or chaff; remove the lids and put clean cloths on the frames, or, if a box hive or log gum, bore half a dozen inch holes in the top of the hives, and that covered with cloth allows moisture to pass up into the packing above. Place a stick, half inch thick, each side of the entrance, long enough to reach the edge of the platform; upon these lay a board, by means of this there will be a communication with the outside at all times; then drive stakes at the front and rear of platform, set up boards all around this platform inside the stakes of sufficient height to allow packing 18 inches above the hives, pack firmly with dry sawdust or chaff around and between the hives and about eighteen inches on top, then lay boards on top of the packing, upon these place stones or other heavy weights (100 lbs. on each hive is not too much). This will pack firmly and prevent heat from passing up through it from the inside of the hive and yet allow moisture to escape. The packing should not be removed until about fruit blossoms, except slightly to examine condition of colonies.

This clamp should be banked outside sufficiently to prevent frost from getting under; if sawdust were packed under the clamp it would be better.

A slanting roof keeps off rain and thawing snow.

BOX WINTERING.

Where parties have only a few colonies old dry-goods boxes may be taken, the bees placed in them and packed in a similar manner to a clamp, but there should *always* be six inches of dry packing under the hive, preventing frost from below. Care should be taken to make the entrance perfect, enabling them to have access to the outside, so that they may have a fly when the weather is favorable.

WINTERING IN CHAFF OR SAWDUST HIVE.

These hives are intended to winter safely without any outside packing, only requiring the same preparation as those for the beehouse, viz., strong in bees, plenty of young plenty of stores (if not sufficient, feed), crowd up on few combs, cut passage in comb, the combs half inch apart, and fill up the space in rear of division board with dry sawdust or chaff, filling the space between top of frames and lid with the large cushion.

Taking all seasons through, nothing pays better than a careful preparation of bees for winter, and I would caution people to beware and not expect this winter to be the same as last, as it was the best winter we have had for many years, and the indications are that the next may not be so favorable, and those who do not properly prepare will likely be found mourning over their empty hives in the spring.

I sincerely hope that no one will have to repent their neglect in this matter when too late.

TRANSFERRING

Having practiced the old ways of transferring for several years, I am now able to give a much better plan, devised and practiced by Mr James Heddon, of Dowagiac, Mich., well known to the bee-keeping fraternity as one of our most progressive and successful apiarists. He says, "when I transfer I put 8 Langstroth wired frames of foundation into my hive; and with said hive, drum, box, and smoker, I approach the old 'gum' and drive the swarm and queen into the hive filled with the frames of wired foundation, which is a hive of beautiful combs 48 hours later. After 21 days the worker brood is all hatched, and a new queen just begun to lay in the old gum. Now I can drive again into just such a hive as the first one, or I can unite with my first drive, and pile up the surplus as I please.

Then is the time to do your 'splitting open' of the 'old gum,' and you have some first-class kindling-wood, a nice lot of extracted honey (after you empty the combs with an extractor), and some old comb to melt up into wax for more comb foundation. Of course, the new hive with the first drive of bees should be put on the stand occupied by the 'old gum,' and the latter removed some distance away." Mr. Heddon further says:—

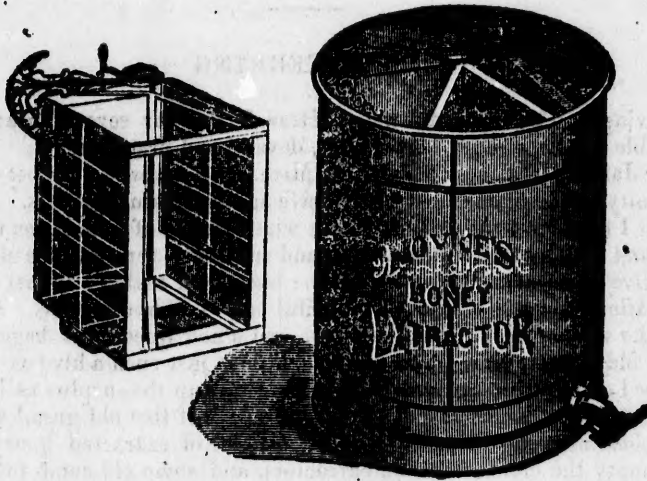
"Once try this plan, and you will see that new inventions suggest new and improved methods. Pure foundation, always a great boon, and now a staple, not only aids the bees in supplying their costliest substance, but but it aids the bee-keeper in getting his combs straight, and more of them, in less time, getting his surplus combs perfect controlling the drones, and consequently queens and workers, besides revolutionizing the process of transferring." Care should be taken not to transfer in cool weather as the brood in the "old gum" might be chilled, and die.

The hives quoted in price list, are ordinary finished hives, we make extra finished hives, for which we charge a little higher price.

TELEPHONES.

We furnish a very useful telephone, for short lines, say from a few feet, to 2 or 3 miles, which can be sold, from 4 to 10 or 12 dollars according to style and length of wire, we have one in use, quarter of a mile long, through which a person can hear a watch tick, quite distinctly, they require no electric battery, or magnet, there is nothing but 2 mouth pieces and one straight fine wire to connect.

HONEY EXTRACTOR.



Latest improved honey extractors, from.

7 to \$15

We now make several kinds of extractors, our lowest priced one is \$7.00, we make another size, that we sell for \$8.50, this one I would recommend, as being the most convenient and useful extractor we make, in proportion to price, it has a large space for honey below the basket, and we put a fine strainer, close underneath the basket, to prevent bees and pieces of comb, &c. From going down into the honey, the \$15.00 extractor, has strainer and swing comb holders, for reversing the combs without lifting them out of basket we intend this season, to make part of our extractors, out of extra heavy tin, for those who may prefer them, parties ordering extractors should always give us the exact outside size of comb frame they wish to extract, or send a frame in the flat by mail.



WAX EXTRACTOR.

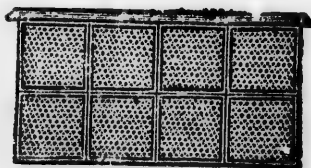
OUR LATEST IMPROVED.

Wax Extractors, and Clarifiers, prices from \$3 to \$4, according to size.

Having used many varieties of these, I have made improvements which every one will feel satisfied are valuable; you can render from the oldest and moldiest combs the brightest and purest wax. there is also no loss by wax remaining in residue. Bee keepers cannot afford to be without one of these machines.

DIRECTIONS FOR USE

Put EXTRACTOR on stove in the same manner as an ordinary pot, having beforehand filled lower tank with water, and the perforated basket above tank with broken comb or whatever material you wish to extract wax from. The steam passed through perforated metal walls of basket melting every particle of wax from the crude material, the wax runs out of a spout for the purpose turned downwards; under this spout have a receptacle which have slightly oiled to keep wax from adhering to its walls. The tube turned upwards serves two very important purposes. viz : to fill water into lower tank and to see if tank requires replenishing without taking out the basket above. Keep everything but tube for wax closed in order to loose no steam and give it full force.



PRICE OF HONEY CANS.

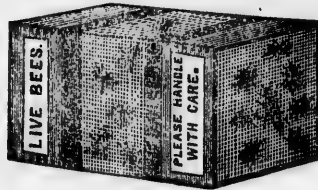
	CANS, PER 1,00
1 pounds	\$2 10
1 1/2 "	2 40
1 3/4 "	4 20
2 "	4 80
2 1/2 "	7 20
5 "	8 40
10 "	12 00

BEE PUBLICATIONS

I can furnish the following Bee papers, at subscription prices, post paid to any person desiring them, every Bee keeper should have, one or more of them

"A B C" OF BEE CULTURE,	\$1 00
CLEANING IN BEE CULTURE,	1 00
COOKS MANUAL,	1 25
BEE KEEPERS EXCHANGE MONTHLY,	1 00
THE AMERICAN BEE JOURNAL, <i>weekly</i> ,	2 00
" " " " " <i>Monthly per year</i> ,	50

SHIPPING CAGE.



The above is a cage, for shipping Bees by the pound, by express or other wise.

HONEY KNIFE.



Jones' latest improved honey Knives, \$1 00
we can also furnish a very nice Honey Knife, made like a garden trowel, which a great many prefer to the regular honey knife, they are made especially for the purpose, of tempered steel, and we sell them at 30 cts.

SUMMER STANDS.

Summer stands, for holding hives, off the damp ground, 25 cts
Iron comb racks, to hang combs on out side of hive, while working with the bees. 25 to 50 cts

PERFORATED ZINK.

Swarm, Queen, and Drone controlers, each 15 cts, a peculiar device, to place at the entrance of hive, to prevent your black Drones, from mating with your Italian Queens, and to prevent Bees from swarming, when not wanted, and kill off, unnecessary Drones. & Cet.

HONEY LABLES.

Price of Honey Lables, will be rated according to size, stile, and quality of paper, we can furnish, the Jones' celebrated Honey Lables, prices quoted on application.

QUEEN NURSERIES.

Queen Nurseries, each.

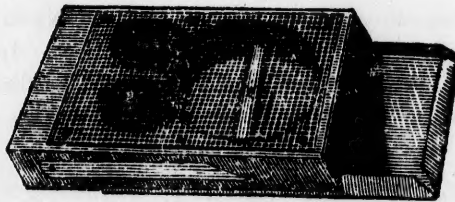
\$2 00

OUR IMPROVED

Uncapping Dish, with perforated strainer.

75 cts.

QUEEN CAGES.



Queen Cages, six different kinds, prices from 5 to 15 cts.


BEEES WAX.

Wanted, either for trade, or cash, for which the highest market price, will be paid.

HOW TO SEND MONEY.

IF you do not wish to take any risk of loss, send P. O. Order, or registered Letter.

PRICE LIST.

			Galup frame.	Jones' frame
Inside Measure  10 1/2 in. sq.			10 1/2 x 13 in.	
New Improved Hives, cut ready for nailing, in				
	the flat.		\$ 0 80	\$ 0 90
"	"	"	Nailed and unpainted.	1 10
"	"	"	Nailed and painted,	1 20
			complete.	1 50
"	"	"	Full Double Story hive,	1 60
for sec boxes, or Extracting frames, in top Story.			2 00	2 25
Double wall Lawn hives, for saw-dust Packing,				
for out door wintering, from,			3 50	to 4 00
The same to contain two colonies, in winter from.			5 00	" 6 00
Nucleus Hives, for raising Queens, 3 comb frames,				50
Comb Frames, unnailed per doz.,				25
One lb sec. boxes, for Comb Honey, per Hundred,				75
Same per thousand,				6 50
Two lb, size per thousand,				7 00
Same per hundred,				1 00
Shipping crates, each,				
Bee quilts, to cover hives each,				5
Metal division boards, for raising comb honey, in body of hive,				25

12 frames, 1 division board, go with each hive. Never less than five hives in the flat will be sent out, unless at nailed prices. In ordering any quantity of hives in the flat, there should be at least 1 nailed to every 5, for holding frames and other small stuff; otherwise extra charge will be made for boxing. Special rates for large quantities.

THIS LIST TO SUPERSEDE ALL OTHERS.

By this List I do not guarantee price, as the markets are constantly subject to changes, but my prices will be as low or lower than competitors, in proportion to the quality of the goods.

Liberal commission will be allowed to Agents.

Parties who receive this circular, will greatly oblige me, by kindly sending me, on a postal card, the names of their neighbouring bee-keepers.

Any of the above mentioned goods, packed and shipped, to any railway station, desired, cash to accompany, all orders, address all correspondence to

W. G. RUSSELL

MILLBROOK ONTARIO.

es' frame
t x 13 in.

\$ 0 90

1 20

1 60

2 25

4 00

6 00

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7 00

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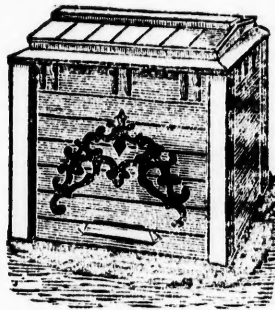
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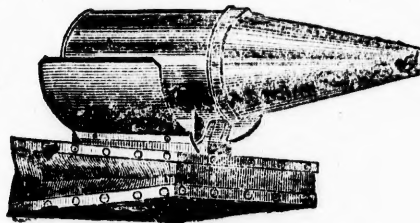
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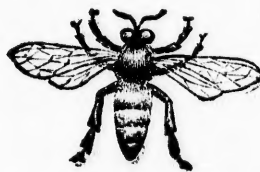
ARIO.



LAWN HIVE.



BEE SMOKER.



WORKER BEE.



HONEY KNIFE.